

SUBCHAPTER C : ACID MANUFACTURING

ADIPIC ACID MANUFACTURING

§117.301. Applicability.

The provisions of this undesignated head (relating to Adipic Acid Manufacturing) shall apply only in the following areas designated nonattainment for ozone: Beaumont/Port Arthur and Houston/Galveston. These provisions shall apply to each adipic acid production unit which is the affected facility.

Adopted 05/11/93

Effective 06/09/93

§117.305. Emission Specifications.

No person may allow emissions of nitrogen oxides, calculated as nitrogen dioxide, from the absorber of any adipic acid production unit to exceed 2.5 pounds per ton of adipic acid produced, on a 24-hour rolling average.

Adopted 05/11/93

Effective 06/09/93

§117.309. Control Plan Procedures.

Any person affected by this undesignated head (relating to Adipic Acid Manufacturing) shall submit a control plan to the Executive Director on the compliance status of all required emission controls and monitoring systems by April 1, 1994. The Executive Director shall approve the plan if it contains all the information specified in this section. Revisions to the control plan shall be submitted to the Executive Director for approval. The control plan shall provide a detailed description of the method to be followed to achieve compliance, specifying the anticipated dates by which the following steps will be taken:

(1) dates by which contracts for emission control and monitoring systems will be awarded or dates by which orders will be issued for the purchase of component parts to accomplish emission control or process modification;

(2) date of initiation of on-site construction or installation of emission control equipment or process modification;

(3) date by which on-site construction or installation of emission control equipment or process modification is to be completed; and

(4) date by which final compliance is to be achieved.

Adopted 05/11/93

Effective 06/09/93

§117.311. Initial Demonstration of Compliance.

(a) Compliance with the nitrogen oxides emission limits specified in §117.305 of this title (relating to Emission Specifications) shall be determined by the performance testing procedures specified in 40 Code of Federal Regulations (CFR) 60, Appendix A, Method 7, or an equivalent method approved by the Executive Director. Method 7A, 7B, 7C, or 7D may be used in place of Method 7. If Method 7C or 7D is used, the sampling time shall be at least one hour.

(b) Performance testing shall be conducted in accordance with the procedures specified in 40 CFR 60, §60.8.

(c) Any continuous emissions monitoring systems (CEMS) or predictive emissions monitoring systems (PEMS) required by §117.313 of this title (relating to Continuous Demonstration of Compliance) shall be installed and operational prior to conducting initial demonstration of compliance testing under subsections (a) and (b) of this section. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device or system.

(d) Testing conducted prior to the effective date of this rule may be used to demonstrate compliance with the standard specified in §117.305 of this title if the owner or operator of an affected facility demonstrates to the Executive Director that the prior demonstration of compliance testing at least meets the requirements of subsections (a), (b), and (c) of this section. The Executive Director reserves the right to request demonstration of compliance testing or CEMS or PEMS performance evaluation at any time.

Adopted 05/25/94

Effective 06/23/94

§117.313. Continuous Demonstration of Compliance.

(a) The owner or operator of any facility subject to the provisions of this undesignated head (relating to Adipic Acid Manufacturing) shall install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for measuring nitrogen oxides (NO_x) from the absorber.

(b) Any CEMS installed subject to subsection (a) of this section shall meet all requirements of 40 Code of Federal Regulations (CFR), Part 60, §60.13; 40 CFR 60, Appendix B, Performance Specification 2; and quality assurance procedures of 40 CFR 60, Appendix F, except that a cylinder gas audit may be performed in lieu of the annual relative accuracy test audit required in Section 5.1.1.

(c) As an alternative to CEMS, the owner or operator of units subject to continuous monitoring requirements under this undesignated head may, with the approval of the Executive Director, elect to install, calibrate, maintain, and operate a predictive emissions monitoring system (PEMS). The required PEMS shall be used to measure NO_x emissions for each affected unit and shall be used to demonstrate continuous compliance with the emission limitations of §117.305 of this title (relating to Emission Specifications). Any PEMS shall meet the requirements of §117.319 of this title (relating to Notification, Recordkeeping, and Reporting Requirements) and §117.213(c)(1)-(3) of this title (relating

to Continuous Demonstration of Compliance).

(d) The owner or operator of an affected facility shall establish a conversion factor for the purpose of converting monitoring data into units of the emission standard (in pounds NO_x per ton of acid produced) as specified in 40 CFR 60, Subpart G, §60.73(b). NO_x emissions data recorded by the CEMS or PEMS shall be represented in terms of both parts per million by volume and pounds NO_x per ton of acid produced.

(e) After the initial demonstration of compliance required by §117.311 of this title (relating to Initial Demonstration of Compliance), compliance with §117.305 of this title shall be determined by the methods required in this section. Compliance with the emission limitations may also be determined at the discretion of the Executive Director using any Texas Natural Resource Conservation Commission compliance method.

Adopted 05/25/94

Effective 06/23/94

§117.319. Notification, Recordkeeping, and Reporting Requirements.

(a) The owner or operator of an affected facility shall submit notification to the Executive Director, as follows:

(1) verbal notification of the date of any continuous emissions monitoring system (CEMS) or predictive emissions monitoring system (PEMS) performance evaluation conducted under §117.313(b) of this title (relating to Continuous Demonstration of Compliance) at least 15 days prior to such date followed by written notification within 15 days after testing is completed; and

(2) verbal notification of the date of any initial demonstration of compliance testing conducted under §117.311 of this title (relating to Initial Demonstration of Compliance) at least 15 days prior to such date followed by written notification within 15 days after testing is completed.

(b) The owner or operator of an affected facility shall furnish the Executive Director and any local air pollution control agency having jurisdiction a copy of any CEMS or PEMS performance evaluation conducted under §117.313 of this title, or any initial demonstration of compliance testing conducted under §117.311 of this title, within 60 days after completion of such evaluation or testing. For purposes of demonstrating compliance with §117.530 of this title (relating to Compliance Schedules For Nitric Acid and Adipic Acid Manufacturing Sources), such results shall be submitted no later than 30 days before the final compliance date specified in §117.530 of this title.

(c) The owner or operator of an affected facility shall report in writing to the Executive Director on a quarterly basis all periods of excess emissions, defined as any 24-hour period during which the average nitrogen oxides emissions (arithmetic average of 24 contiguous one-hour periods) exceed the emission limitation in §117.305 of this title (relating to Emission Specifications) and the monitoring system performance. All reports shall be postmarked or received by the 30th day following the end of each calendar quarter. Written reports shall include the following information:

(1) the magnitude of excess emissions computed in accordance with 40 Code of Federal Regulations, Part 60, §60.13(h), any conversion factors used, the date and time of commencement and completion of each time period of excess emissions, and the process operating time during the reporting period;

(2) specific identification of each period of excess emissions that occurs during start-ups, shutdowns, and malfunctions of the affected unit, the nature and cause of any malfunction (if known), and the corrective action taken or preventative measures adopted;

(3) the date and time identifying each period during which the CEMS or PEMS was inoperative, except for zero and span checks and the nature of the system repairs or adjustments;

(4) when no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such information shall be stated in the report; and

(5) if the total duration of excess emissions for the reporting period is less than 1.0% of the total operating time for the reporting period and the CEMS or PEMS downtime for the reporting period is less than 5.0% of the total operating time for the reporting period, only a summary report form (as outlined in the latest edition of the Texas Natural Resource Conservation Commission (TNRCC) "Guidance for Preparation of Summary, Excess Emission, and Continuous Monitoring System Reports") shall be submitted, unless otherwise requested by the Executive Director of the TNRCC. If the total duration of excess emissions for the reporting period is greater than or equal to 1.0% of the total operating time for the reporting period or the CEMS or PEMS downtime for the reporting period is greater than or equal to 5.0% of the total operating time for the reporting period, a summary report and an excess emission report shall both be submitted.

(d) the owner or operator of an affected facility shall maintain written records of all continuous emissions monitoring and demonstration of compliance test results, hours of operation, and daily production rates. Such records shall be kept for a period of at least two years and shall be made available upon request by authorized representatives of the TNRCC, United States Environmental Protection Agency, or local air pollution control agencies having jurisdiction.

Adopted 05/25/94

Effective 06/23/94

§117.321. Alternative Case Specific Specifications.

Where a person can demonstrate that an affected unit cannot attain the requirements of §117.305 of this title (relating to Emission Specifications), as applicable, the Executive Director, on a case-by-case basis after considering the technological and economic circumstances of the individual unit, may approve emission specifications different from §117.305 of this title for that unit based on the determination that such specifications are the result of the lowest emission limitation the unit is capable of meeting after the application of reasonably available control technology. Any person affected by the decision of the Executive Director may appeal to the Commission by filing written notice of appeal with the Executive Director within 30 days after the decision. Such appeal is to be taken by written notification to the Executive Director. Section 103.71 of this title (relating to Request for Action by the

Commission should be consulted for the method of requesting Commission action on the appeal. Executive Director approval does not necessarily constitute satisfaction of all federal requirements nor eliminate the need for approval by the EPA in cases where specified criteria for determining equivalency have not been clearly identified in applicable sections of this undesignated head (relating to Adipic Acid Manufacturing).

Adopted 05/25/94

Effective 06/23/94

SUBCHAPTER C : ACID MANUFACTURING

NITRIC ACID MANUFACTURING — OZONE NONATTAINMENT AREAS

§117.401. Applicability.

The provisions of this undesignated head (relating to Nitric Acid Manufacturing) shall apply only in the following areas designated nonattainment for ozone: Beaumont/Port Arthur and Houston/Galveston. These provisions shall apply to each nitric acid production unit which is the affected facility.

Adopted 05/11/93

Effective 06/09/93

§117.405. Emission Specifications.

No person may allow emissions of nitrogen oxides, calculated as nitrogen dioxide, from the absorber of any nitric acid production unit to exceed 2.0 pounds per ton of nitric acid produced, the production being expressed as 100% nitric acid, on a 24-hour rolling average.

Adopted 05/11/93

Effective 06/09/93

§117.409. Control Plan Procedures.

Any person affected by this undesignated head (relating to Nitric Acid Manufacturing) shall submit a control plan to the Executive Director on the compliance status of all required emission controls and monitoring systems by April 1, 1994. The Executive Director shall approve the plan if it contains all the information specified in this section. Revisions to the control plan shall be submitted to the Executive Director for approval. The control plan shall provide a detailed description of the method to be followed to achieve compliance, specifying the anticipated dates by which the following steps will be taken:

(1) dates by which contracts for emission control and monitoring systems will be awarded or dates by which orders will be issued for the purchase of component parts to accomplish emission control or process modification;

(2) date of initiation of on-site construction or installation of emission control equipment or process modification;

(3) date by which on-site construction or installation of emission control equipment or process modification is to be completed; and

(4) date by which final compliance is to be achieved.

Adopted 05/11/93

Effective 06/09/93

§117.411. Initial Demonstration of Compliance.

(a) Compliance with the nitrogen oxides emission limits specified in §117.405 of this title (relating to Emission Specifications) shall be determined by the performance testing procedures specified in 40 Code of Federal Regulations (CFR), Part 60, Appendix A, Method 7, or an equivalent method approved by the Executive Director. Method 7A, 7B, 7C, or 7D may be used in place of Method 7. If Method 7C or 7D is used, the sampling time shall be at least one hour.

(b) Performance testing shall be conducted in accordance with the procedures specified in 40 CFR, Part 60, §60.8.

(c) Any continuous emissions monitoring systems (CEMS) or predictive emissions monitoring systems (PEMS) required by §117.413 of this title (relating to Continuous Demonstration of Compliance) shall be installed and operational prior to conducting demonstration of compliance testing under subsections (a) and (b) of this section. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device or system.

(d) Testing conducted prior to the effective date of this rule may be used to demonstrate compliance with the standard specified in §117.405 of this title if the owner or operator of an affected facility demonstrates to the Executive Director that the prior demonstration of compliance testing at least meets the requirements of subsections (a), (b), and (c) of this section. The Executive Director reserves the right to request demonstration of compliance testing or CEMS or PEMS performance evaluation at any time.

Adopted 05/25/94

Effective 06/23/94

§117.413. Continuous Demonstration of Compliance.

(a) The owner or operator of any facility subject to the provisions of this undesignated head (relating to Nitric Acid Manufacturing) shall install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for measuring nitrogen oxides (NO_x) from the absorber.

(b) Any CEMS installed subject to subsection (a) of this section shall meet all requirements of 40 Code of Federal Regulations (CFR), Part 60, §60.13; 40 CFR 60, Appendix B, Performance Specification 2; and quality assurance procedures of 40 CFR 60, Appendix F, except that a cylinder gas audit may be performed in lieu of the annual relative accuracy test audit required in Section 5.1.1.

(c) As an alternative to CEMS, the owner or operator of units subject to continuous monitoring requirements under this undesignated head may, with the approval of the Executive Director, elect to install, calibrate, maintain, and operate a predictive emissions monitoring system (PEMS). The required PEMS shall be used to measure NO_x emissions for each affected unit and shall be used to demonstrate continuous compliance with the emission limitations of §117.405 of this title (relating to Emission Specifications). Any PEMS shall meet the requirements of §117.419 of this title (relating to Notification, Recordkeeping, and Reporting Requirements) and §117.213(c)(1)-(3) of this title (relating

to Continuous Demonstration of Compliance).

(d) The owner or operator of an affected facility shall establish a conversion factor for the purpose of converting monitoring data into units of the emission standard (in pounds NO_x per ton of acid produced, expressed as 100% nitric acid) as specified in 40 CFR 60, Subpart G, §60.73(b). NO_x emissions data recorded by the CEMS or PEMS shall be represented in terms of both parts per million by volume and pounds NO_x per ton of acid produced, expressed as 100% nitric acid.

(e) After the initial demonstration of compliance required by §117.411 of this title (relating to Initial Demonstration of Compliance), compliance with §117.405 of this title shall be determined by the methods required in this section. Compliance with the emission limitations may also be determined at the discretion of the Executive Director using any Texas Natural Resource Conservation Commission compliance method.

Adopted 05/25/94

Effective 06/23/94

§117.419. Notification, Recordkeeping, and Reporting Requirements.

(a) The owner or operator of an affected facility shall submit notification to the Executive Director, as follows:

(1) verbal notification of the date of any continuous emissions monitoring system (CEMS) or predictive emissions monitoring system (PEMS) performance evaluation conducted under §117.413(b) of this title (relating to Continuous Demonstration of Compliance) at least 15 days prior to such date followed by written notification within 15 days after testing is completed; and

(2) verbal notification of the date of any initial demonstration of compliance testing conducted under §117.411 of this title (relating to Initial Demonstration of Compliance) at least 15 days prior to such date followed by written notification within 15 days after testing is completed.

(b) The owner or operator of an affected facility shall furnish the Executive Director and any local air pollution control agency having jurisdiction a copy of any CEMS or PEMS performance evaluation conducted under §117.413 of this title or any initial demonstration of compliance testing conducted under §117.411 of this title within 60 days after completion of such evaluation or testing. For purposes of demonstrating compliance with §117.530 of this title (relating to Compliance Schedules For Nitric Acid and Adipic Acid Manufacturing Sources), such results shall be submitted no later than 30 days before the final compliance date specified in §117.530 of this title.

(c) The owner or operator of an affected facility shall report in writing to the Executive Director on a quarterly basis all periods of excess emissions, defined as any 24-hour period during which the average nitrogen oxides emissions (arithmetic average of 24 contiguous one-hour periods) as measured by a CEMS or PEMS exceed the emission limitation in §117.405 of this title (relating to Emission Specifications) and the monitoring system performance. All reports shall be postmarked or received by the 30th day following the end of each calendar quarter. Written reports shall include the following information:

(1) the magnitude of excess emissions computed in accordance with 40 CFR, Part 60, §60.13(h), any conversion factors used, the date and time of commencement and completion of each time period of excess emissions, and the process operating time during the reporting period.

(2) specific identification of each period of excess emissions that occurs during start-ups, shutdowns, and malfunctions of the affected unit. The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures adopted;

(3) the date and time identifying each period during which the CEMS or PEMS was inoperative, except for zero and span checks and the nature of the system repairs or adjustments;

(4) when no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such information shall be stated in the report; and

(5) if the total duration of excess emissions for the reporting period is less than 1.0% of the total operating time for the reporting period and the CEMS or PEMS downtime for the reporting period is less than 5.0% of the total operating time for the reporting period, only a summary report form (as outlined in the latest edition of the Texas Natural Resource Conservation Commission (TNRCC) "Guidance for Preparation of Summary, Excess Emission, and Continuous Monitoring System Reports") shall be submitted, unless otherwise requested by the Executive Director of the TNRCC. If the total duration of excess emissions for the reporting period is greater than or equal to 1.0% of the total operating time for the reporting period or the CEMS or PEMS downtime for the reporting period is greater than or equal to 5.0% of the total operating time for the reporting period, a summary report and an excess emission report shall both be submitted.

(d) The owner or operator of an affected facility shall maintain written records of all continuous emissions monitoring and demonstration of compliance test results, hours of operation, and daily production rates. Such records shall be kept for a period of at least two years and shall be made available upon request by authorized representatives of the TNRCC, United States Environmental Protection Agency, or any local air pollution control agency having jurisdiction.

§117.421. Alternative Case Specific Specifications.

Where a person can demonstrate that an affected unit cannot attain the requirements of §117.405 of this title (relating to Emission Specifications), as applicable, the Executive Director, on a case-by-case basis after considering the technological and economic circumstances of the individual unit, may approve emission specifications different from §117.405 of this title for that unit based on the determination that such specifications are the result of the lowest emission limitation the unit is capable of meeting after the application of reasonably available control technology. Any person affected by the decision of the Executive Director may appeal to the Commission by filing written notice of appeal with the Executive Director within 30 days after the decision. Such appeal is to be taken by written notification to the Executive Director. Section 103.71 of this title (relating to Request for Action by the Commission) should be consulted for the method of requesting Commission action on the appeal. Executive Director approval does not necessarily constitute satisfaction of all federal requirements nor eliminate the need for approval by the United States Environmental Protection Agency in cases where specified criteria for determining equivalency have not been clearly identified in applicable sections of this undesignated head (relating to Nitric Acid Manufacturing).

Adopted 05/25/94

Effective 06/23/94

SUBCHAPTER C : ACID MANUFACTURING

NITRIC ACID MANUFACTURING - GENERAL

§117.451. Applicability.

The emission limitations specified in §117.455 of this title (relating to Emission Specifications) shall apply to all nitric acid production units in the state, with the exception that for nitric acid production units located in applicable ozone non- attainment areas, the emission limitations of §117.405 of this title (relating to Emission Specifications) shall apply after May 31, 1999.

Adopted 01/10/96

Effective 02/01/96

§117.455. Emission Specifications.

No person shall allow emissions of nitrogen oxides, calculated as nitrogen dioxide, from any nitric acid production unit to exceed 600 parts per million by volume.

Adopted 05/11/93

Effective 06/09/93

§117.458. Applicability of Federal New Source Performance Standards.

None of the provisions of this subchapter (relating to Acid Manufacturing) shall be construed to limit or preclude applicability of any provision of 40 Code of Federal Regulations Part 60, Subpart G (Standards of Performance for Nitric Acid Plants).

Adopted 05/11/93

Effective 06/09/93